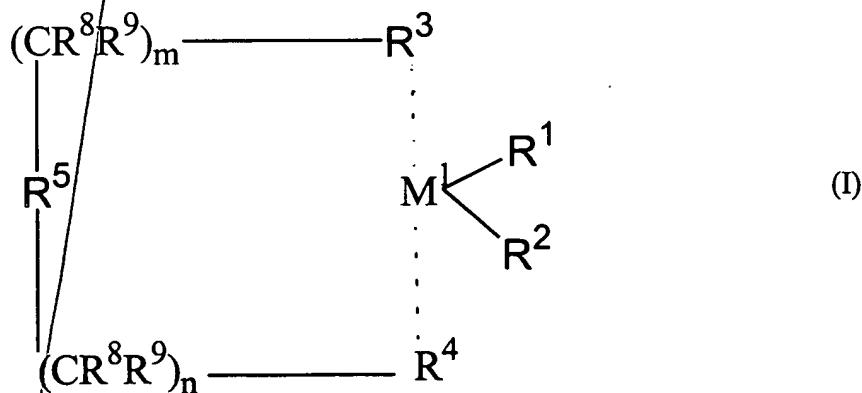


the width determined at quarter peak height is greater than 15°C, wherein such process comprises the direct polymerization of propylene or copolymerization of propylene with olefins of the formula  $R^aCH = CHR^b$ , in which  $R^a$  and  $R^b$  are identical or different and are a hydrogen atom or an alkyl radical having 1 to 14 carbon atoms, or  $R^a$  and  $R^b$ , together with the atoms connecting them, can form a ring,

*SUB E1*  
D1

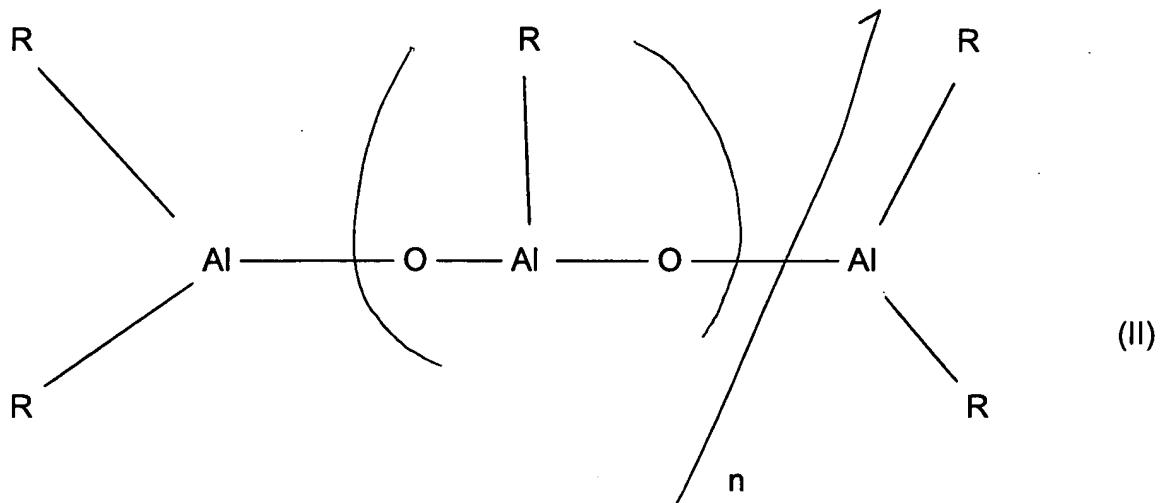
to at least two polyolefins of different melting points, wherein the melting points of the polyolefins must differ by at least 5°C, and wherein the polymerized is carried out at a temperature of from -60 to 200°C, and a pressure of from 0.5 to 100 bar, in solution, in suspension or in the gas phase, in the presence of a catalyst, wherein the catalyst comprises

(A) at least two metallocenes as transition-metal components and an aluminoxane of the formula II

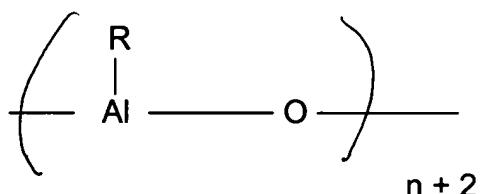
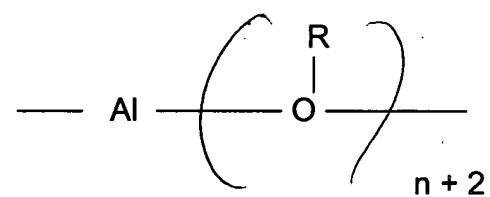


Serial No. 08/120,105

1992/F 294



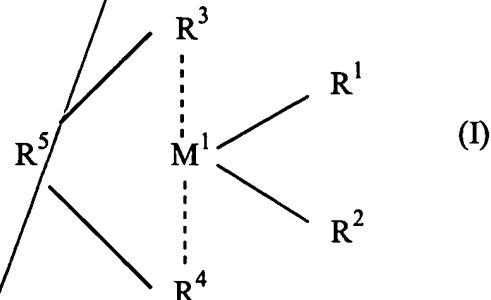
for the linear type and/or of the formula III



for the cyclic type, where in the formulae II and III, the radicals R may be identical or different are a C<sub>1</sub>-C<sub>6</sub>-alkyl group, a C<sub>1</sub>-C<sub>6</sub>-fluoroalkyl group, a C<sub>6</sub>-C<sub>18</sub>-aryl group, a C<sub>6</sub>-C<sub>18</sub>-fluoroaryl group or hydrogen, and n is an integer from 0 to 50, and the aluminoxane component may additionally contain a compound of the formula AlR<sub>3</sub>, or

(B) at least two metallocenes as transition-metal components and a salt-like compound of the formula R<sub>x</sub>NH<sub>4-x</sub> or of the formula R<sub>3</sub>PHBR'<sub>4</sub> wherein x is 1, 2 or 3, R is identical or different and is alkyl or aryl, and R' is aryl, which may also be fluorinated or partly fluorinated,

where the transition-metal component used comprises at least two metallocenes of the formula I:



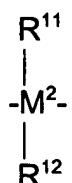
in which

$M^1$  is Zr or Hf,

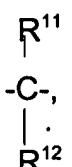
$R^1$  and  $R^2$  are identical or different and are a hydrogen atom, a  $C_1$ - $C_{10}$ -alkyl group, a  $C_1$ - $C_{10}$ -alkoxy group, a  $C_6$ - $C_{10}$ -aryl group, a  $C_6$ - $C_{10}$ -aryloxy group, a  $C_2$ - $C_{10}$ -alkenyl group, a  $C_7$ - $C_{40}$ -arylalkyl group, a  $C_7$ - $C_{40}$ -alkylaryl group, a  $C_8$ - $C_{40}$ -arylalkenyl group, or a halogen atom,

$R^3$  and  $R^4$  are identical or different and are a monocyclic or polycyclic, unsubstituted or substituted hydrocarbon radical, together with the metal atom  $M^1$ , can form a sandwich structure,

$R^5$  is



or



where  $R^{11}$  [ ] and  $R^{12}$  [and  $R^{13}$ ] are identical or different and are a hydrogen atom, a halogen atom, a  $C_1$ - $C_{10}$ -alkyl group, a  $C_1$ - $C_{10}$ -fluoroalkyl group, a  $C_6$ - $C_{10}$ -aryl group, a  $C_6$ - $C_{10}$ -fluoraryl group, a  $C_1$ - $C_{10}$ -alkoxy group, a  $C_2$ - $C_{10}$ -alkenyl group, a  $C_7$ - $C_{40}$ -arylalkyl group, a  $C_8$ - $C_{40}$ -arylalkenyl group or a  $C_7$ - $C_{40}$ -alkylaryl group, or  $R^{11}$  and  $R^{12}$  [or  $R^{11}$  and  $R^{13}$ , in each case] together with the atoms connecting them, form a ring,

$M^2$  is silicon or germanium,

$R^8$  and  $R^9$  are identical or different and are as defined for  $R^{11}$  and

$m$  and  $n$  are identical or different and are zero or 1.

*SH 3*

24. (Once amended) The process as claimed in claim 17, wherein R<sup>1</sup> and R<sup>2</sup> are identical or different and are a hydrogen atom, a C<sub>1</sub>-C<sub>3</sub>- alkyl group, a C<sub>1</sub>-C<sub>3</sub>- alkoxy group, a C<sub>6</sub>-C<sub>8</sub>-aryl group, a C<sub>6</sub>-C<sub>8</sub>-aryloxy group, a C<sub>2</sub>-C<sub>4</sub>-alkenyl group, a C<sub>7</sub>-C<sub>10</sub>-arylalkyl group, a C<sub>7</sub>-C<sub>12</sub>-alkylaryl group, a C<sub>8</sub>-C<sub>12</sub>-arylalkenyl group, or chlorine R<sup>11</sup>, R<sup>12</sup> and R<sup>13</sup> are identical or different and are a hydrogen atom, a C<sub>1</sub>-C<sub>4</sub>- alkyl group, CF<sub>3</sub> group, a C<sub>1</sub>-C<sub>4</sub>-alkoxy group, a C<sub>6</sub>-C<sub>8</sub>-aryl group, pentafluorophenyl group, a C<sub>2</sub>-C<sub>4</sub>-alkenyl group, a C<sub>7</sub>-C<sub>10</sub>-arylalkyl group, a C<sub>7</sub>-C<sub>12</sub>-alkylaryl group, a C<sub>8</sub>-C<sub>12</sub>-arylalkenyl group, or R<sup>11</sup> and R<sup>12</sup> [or R<sup>11</sup> and R<sup>13</sup>, in each case] together with the atoms connecting them, form a ring.

*DR*

25. (Once amended) The process as claimed in claim 17, wherein R<sup>1</sup> and R<sup>2</sup> are identical and are methyl or chlorine, R<sup>4</sup> and R<sup>3</sup> are indenyl, cyclopentadienyl or fluorenyl, where these ligands may carry additional substituents as defined for R<sup>11</sup>[, R<sup>12</sup> and R<sup>13</sup>]. --

Please add the following new claim:

*SUR*  
*F3*  
*CH<sub>3</sub>SiCH<sub>3</sub>* --

- - 28. The process as claimed in claim 25, wherein R<sup>5</sup> is ethylene or